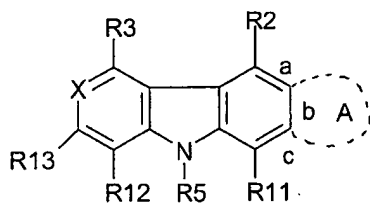


IN THE CLAIMS

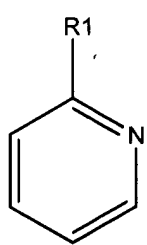
1. (currently amended) A method of treating a disease related to a pre-messenger RNA splicing process within a cell wherein said disease is Frasier syndrome, frontotemporal dementia related to chromosome 17 (a form of Parkinson's), Leigh syndrome (a type of encephalopathy), atypical cystic fibrosis, a certain neuropathology related to Tau protein mutation, Alzheimer's disease, amyotrophy that influences the SMN (survival motor neuron) gene, depression related to disturbances in serotonin splicing and AIDS, comprising administering to a patient in need thereof a medicine comprising a compound of benzo-indole or pyrido-indole derivative corresponding to the following formula I:

**Formula I**

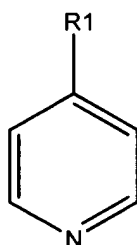
or a pharmaceutically acceptable salt, isomer and/or mixture thereof, wherein

X represents N or N⁺R₄ anhydro base, .

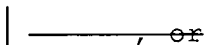
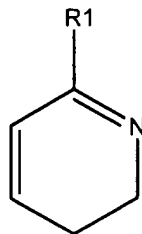
and ring A, which is in position b corresponds to



or



or



wherein R1 represents

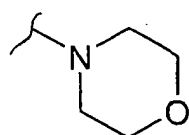
an atom of hydrogen or halogen or a $-C=N-OH$ or $-O-C(=O)(CH_3)$ or $-C\equiv N$ group, or a $-N-R_6R_7$ group,

wherein R6 and R7 represent independently of one another

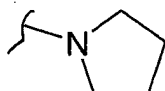
a hydrogen atom,

a saturated or unsaturated ring having C6, , optionally containing an atom of nitrogen and possibly substituted by one or more alkyl groups at C1 to C3, or

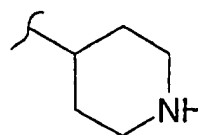
a linear, branched and/or unsaturated alkyl group having C1 to C13 in which one or more atoms of carbon is optionally substituted by an atom of nitrogen, said alkyl group being optionally substituted by one or more $-OH$ and/or $=O$ groups and/or by a group selected from the following compounds:



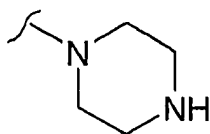
or



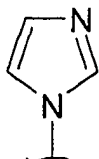
or



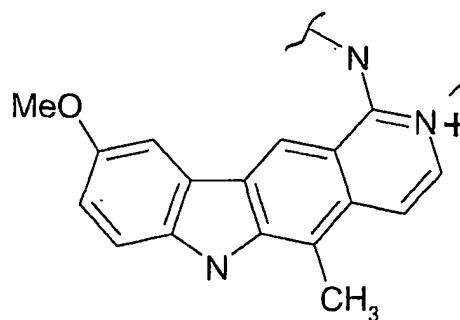
or



or



or



said group being optionally substituted by an alkyl group at C1 to C3 which itself is possibly substituted by an amino group, or a $-NH-R_8$ group

wherein R8 represents an alkyl- $N-R_9R_{10}$ group,

wherein the alkyl group of said alkyl- $N-R_9R_{10}$ group represents a linear or branched group having C1 to C13

optionally unsaturated and/or substituted by one or more alkyl groups at C1 to C3 and/or hydroxyl groups, and R9 and R10 represent independently of one another a hydrogen atom or an alkyl group having C1 to C4 optionally substituted by one or more hydroxyl and/or oxo groups,

R2 represents a hydrogen atom, a methyl group or a $\text{-NH-(CH}_2\text{)}_3\text{-N(CH}_3\text{)}_2$ group,

R3 represents a hydrogen atom, a halogen atom or a methyl, amino or methoxymethyl group, or said -NH-R_8 group,

R4 represents a hydrogen atom, a hydroxyl or alkyl group having C1-C6 or a methoxy group optionally substituted by a phenyl group,

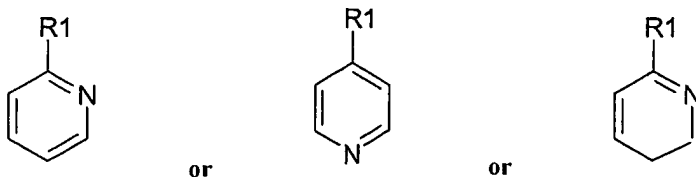
R5 represents a hydrogen atom or a methyl or methoxymethyl group when X represents N or R5 is absent when X represents N^+R_4 anhydro base,

R11 and R12 represent independently of one another a hydrogen atom or an alkyl group having C1-C3 and

R13 represents a hydrogen atom or a methyl group.

2. (cancelled)

3. (previously presented) The method of claim 1, wherein said compound of pyrido-indole derivative is a derivative of pyrido-pyrrolo-isoquinoline of said formula I, wherein X represents N or N^+R_4 anhydro base, and ring A represents



wherein R1 represents a halogen atom, an amino group, said $\text{-N-R}_6\text{R}_7$ or said -NH-R_8 group,

R2 represents a hydrogen atom or a methyl group,
 R3 represents a hydrogen atom or said NH-R8 group,
 R4 represents a hydrogen atom or a methyl group,
 R5 represents a hydrogen atom or a methyl group when X represents N or R5 is absent when X represents said N⁺R4 anhydro base, and
 R11 represents a hydrogen atom or a methyl group.

4. (cancelled)

5. (previously presented) The method of claim 1, wherein said compound is selected from a group consisting of:

10-chloro-2,6-dimethyl-2H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline,
 N'-(6,11-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-dimethyl-propane-1,3-diamine,
 N,N-dimethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,
 N-ethyl-N-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino)-propyl]-succinamic acid,
 2-[(2-hydroxy-ethyl)-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino) propyl]-amino-ethanol,
 N-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,
 N-3-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-1-diethyl-butane-1,3-diamine,
 N-(6,11-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine,
 N'-(5,6-dimethyl-5H-pyrido[3'4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-dimethyl-propane-1,3-diamine,
 N-(5,6-dimethyl-5H-pyrido[3'4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine,
 (3-imidazol-1-yl-propyl)-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-amine,
 N-N,diethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,

N-1,N-10-Bis-(3-diethylamino-propyl)-3,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline-1,10-diamine,

N,N-dimethyl-N'-(10,11-dimethyl-10H-pyrido[3'4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,

N,N-diethyl-N'-(10,11-dimethyl-10H-pyrido[3'4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,

N,N-diethyl-N'-(11-methyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,

N,N-dimethyl-N'-(11-methyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,

N-(5,6-dimethyl-5H-pyrido[3'4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine, and

6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl-amine.

6. (cancelled)

7. (previously presented) The method as in claim 1 wherein said compound is selected from a group consisting of:

10-chloro-2,6-dimethyl-2H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline,

N'-(6,11-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-dimethyl-propane-1,3-diamine,

N,N-dimethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,

N-ethyl-N-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino)-propyl]-succinamic acid,

2-[(2-hydroxy-ethyl)-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino)propyl]-amino-ethanol,

N,N-diethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-ethane-1,2-diamine,

N-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,

N-3-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N, N-1-diethyl-butane-1,3-diamine,
N-(6,11-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine,
N'-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-dimethyl-propane-1,3-diamine,
N-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine,
(3-imidazol-1-yl-propyl)-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-amine,
N,N-diethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,
N-1,N-10-Bis-(3-diethylamino-propyl)-3,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline-1,10-diamine,
N,N-dimethyl-N'-(10,11-dimethyl-10H-pyrido[3'4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,
N,N-diethyl-N'-(10,11-dimethyl-10H-pyrido[3'4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,
N,N-diethyl-N'-(11-methyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,
N,N-dimethyl-N'-(11-methyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,
N-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine, and
6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl-amine.

8. (cancelled)

9. (previously presented) The method of claim 1, wherein said compound is selected from a group consisting of:
10-chloro-2,6-dimethyl-2H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline,
N-ethyl-N-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino)-propyl]-succinamic acid,
N,N-diethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-ethane-1,2-diamine,

N'-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-dimethyl-propane-1,3-diamine,
N,N-diethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline-10-yl)-propane-1,3-diamine,
and
6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl-amine.

10. (previously presented) The method of claim 1, wherein said splicing process is either constitutive or dependent on ESE, ISE, ESS or ISS regulatory sequences.

11. (previously presented) The method of claim 10, wherein said splicing process is either constitutive or dependent on ESE regulatory sequences.

Claims 12-14 (cancelled)

15. (previously presented) The method of claim 1, wherein said medicine further comprises an excipient.

16. (previously presented) The method of claim 15, wherein said medicine is in a solid or liquid form..

17. (previously presented) 10-chloro-2,6-dimethyl-2H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline.

Claims 18 and 19 (cancelled)

20. (previously presented) N-ethyl-N-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino)-propyl]-succinamic acid.

Claims 21-25 (cancelled)

26. (previously presented) A medicine comprising a compound as in any one of claims 17 and 20.

27. (currently amended) A medicine comprising ~~any one of the compounds of claim 5~~ a compound selected from the group consisting of:

10-chloro-2,6-dimethyl-2H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline,

N'-(6,11-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-dimethyl-propane-1,3-diamine,

N,N-dimethyl-N'-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,

N-ethyl-N-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino)-propyl]-succinamic acid,

2-[(2-hydroxy-ethyl)-[3-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-ylamino) propyl]-amino-ethanol,

N-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-propane-1,3-diamine,

N-3-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-1-diethyl-butane-1,3-diamine,

N-(6,11-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine,

N'-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N,N-dimethyl-propane-1,3-diamine,

N-(5,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine,

(3-imidazol-1-yl-propyl)-(6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-amine,

N-1,N-10-Bis-(3-diethylamino-propyl)-3,6-dimethyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinoline-1,10-diamine,

N,N-dimethyl-N'-(10,11-dimethyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,

N,N-diethyl-N'-(10,11-dimethyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,

N,N-diethyl-N'-(11-methyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,

N,N-dimethyl-N'-(11-methyl-10H-pyrido[3',4':4,5]pyrrolo[3,2-g]quinoline)-4-yl-propane-1,3-diamine,
N-(5,6-dimethyl-5H-pyrido[3'4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl)-N'-ethyl-propane-1,3-diamine, and
6-methyl-5H-pyrido[3',4':4,5]pyrrolo[2,3-g]isoquinolin-10-yl-amine.

Claims 28 and 29 (cancelled)